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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

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 NEWS  1          Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Jan 25  BLAST(R) searching in REGISTRY available in STN on the Web
 NEWS  3  Jan 29  FSTA has been reloaded and moves to weekly updates
 NEWS  4  Feb 01  DKILIT now produced by FIZ Karlsruhe and has a new update
                  frequency
 NEWS  5  Feb 19  Access via Tymnet and SprintNet Eliminated Effective 3/31/02
 NEWS  6  Mar 08  Gene Names now available in BIOSIS
 NEWS  7  Mar 22  TOXLIT no longer available
 NEWS  8  Mar 22  TRCTHERMO no longer available
 NEWS  9  Mar 28  US Provisional Priorities searched with P in CA/CAplus
                  and USPATFULL
 NEWS 10  Mar 28  LIPINSKI/CALC added for property searching in REGISTRY
 NEWS 11  Apr 02  PAPERCHEM no longer available on STN.  Use PAPERCHEM2 instead.
 NEWS 12  Apr 08  "Ask CAS" for self-help around the clock
 NEWS 13  Apr 09  BEILSTEIN: Reload and Implementation of a New Subject Area
 NEWS 14  Apr 09  ZDB will be removed from STN
 NEWS 15  Apr 19  US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
 NEWS 16  Apr 22  Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
 NEWS 17  Apr 22  BIOSIS Gene Names now available in TOXCENTER
 NEWS 18  Apr 22  Federal Research in Progress (FEDRIP) now available
 NEWS 19  Jun 03  New e-mail delivery for search results now available
 NEWS 20  Jun 10  MEDLINE Reload
 NEWS 21  Jun 10  PCTFULL has been reloaded
 NEWS 22  Jul 02  FOREGE no longer contains STANDARDS file segment
 NEWS 23  Jul 19  NTIS to be reloaded July 28, 2002
 NEWS 24  Jul 22  USAN to be reloaded July 28, 2002;
                  saved answer sets no longer valid

 NEWS EXPRESS  February 1 CURRENT WINDOWS VERSION IS V6.0d,
               CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)
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Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

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FILE 'HOME' ENTERED AT 09:16:39 ON 29 JUL 2002

=> file agricola biosis
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'AGRICOLA' ENTERED AT 09:16:50 ON 29 JUL 2002

FILE 'BIOSIS' ENTERED AT 09:16:50 ON 29 JUL 2002
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=> cob color (10w) red
COB IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s cob color (10w) red
L1             0 COB COLOR (10W) RED

=> s silk color (10w) pink
L2             0 SILK COLOR (10W) PINK

=> s anther color (10w) purple
L3             3 ANTHER COLOR (10W) PURPLE

=> s l3 and (corn or maize)
L4             0 L3 AND (CORN OR MAIZE)

=> s ph7jd and (corn or maize)
L5             0 PH7JD AND (CORN OR MAIZE)

=> s relative maturity (10w) 101
L6             0 RELATIVE MATURITY (10W) 101

=> s high grain yield and (corn or maize)
L7            49 HIGH GRAIN YIELD AND (CORN OR MAIZE)

=> s l7 and stay green
L8             0 L7 AND STAY GREEN

=> s l7 and stalk lodging
L9             0 L7 AND STALK LODGING

=> s l7 and cold test
L10            0 L7 AND COLD TEST

=> s l7 and pollen shed
L11            0 L7 AND POLLEN SHED

=> s l7 and northern leaf blight
L12            0 L7 AND NORTHERN LEAF BLIGHT

=> s l7 and wilt
L13            0 L7 AND WILT

=> s stay green and (corn or maize)
L14           34 STAY GREEN AND (CORN OR MAIZE)

=> s l14 and high grain yield
L15            0 L14 AND HIGH GRAIN YIELD
```

=> s l14 and cold
L16 2 L14 AND COLD

=> d 1-2 ti

L16 ANSWER 1 OF 2 AGRICOLA
TI Effect of seed maturation and genotype on seed vigor in **maize**.

L16 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Effect of seed maturation and genotype on seed vigor in **maize**.

=> d ab

L16 ANSWER 1 OF 2 AGRICOLA
AB High quality seed is the goal of all **corn** (Zea mays L.) seed producers. The objective of this investigation was to relate several indicators of seed maturity (black layer (BL), milk line (ML)], to seed vigor (**cold** test and conductivity) over a wide range of dent **corn** genotypes and environments. Two inbreds (B73, Mol7), four single and modified single cross hybrids, and seven open pollinated, double and three way cross hybrids were produced at two locations (Lexington and Danville, KY) from 1985 to 1989. In 1986 and 1987, a complete plant defoliation treatment was also imposed on inbred, single and double cross hybrids. Seed harvests were started at approximately 30 d after pollination and continued at short intervals (approximately 4 d). Seed vigor reached maximum levels at physiological maturity (PM) which occurred at black layer Stage 4 for single and double cross progeny. Maximum seed vigor occurred slightly later for inbreds between black layer Stages 4 and 5. There was a significant quadratic relationship between seed vigor (**cold** test and conductivity) and black layer maturity across all years in each genotype grouping including **stay-green** hybrids. When plants were stressed by defoliation or high temperatures during seed development, the seed weight was reduced, seed maturation was accelerated, but maximum seed vigor occurred at the same stage (BL4) as for nonstressed plants. Maximum seed vigor levels consistently occurred at physiological maturity as determined by black layer (or milk line), which can be used by seed producers to estimate the date of harvest.

=> d so

L16 ANSWER 1 OF 2 AGRICOLA
SO Crop science, May/June 1995. Vol. 35, No. 3. p. 857-862
Publisher: Madison, Wis. : Crop Science Society of America, 1961-
CODEN: CRPSAY; ISSN: 0011-183X

=> d l14 and pollen shed
'AND' IS NOT A VALID FORMAT
'POLLEN' IS NOT A VALID FORMAT
'SHED' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files. Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):ti

L14 ANSWER 1 OF 34 AGRICOLA
TI Effect of nitrogen application on accumulation and translocation of carbon and nitrogen compounds in two **maize** cultivars with different senescent appearance.

```
=> s l14 and pollen shed
L17             0 L14 AND POLLEN SHED

=> s l14 and northern leaf blight
L18             0 L14 AND NORTHERN LEAF BLIGHT

=> s stalk lodging and (corn or maize)
L19           155 STALK LODGING AND (CORN OR MAIZE)

=> s l19 and stay green
L20             0 L19 AND STAY GREEN

=> s l19 and coled
L21             0 L19 AND COLED

=> s l19 and cold
L22             4 L19 AND COLD

=> dup rem l22
PROCESSING COMPLETED FOR L22
L23             4 DUP REM L22 (0 DUPLICATES REMOVED)

=> d 1-4 ti

L23  ANSWER 1 OF 4  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Relevant traits, genetic variation and breeding strategies in early silage
     maize.

L23  ANSWER 2 OF 4  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   CORRELATED CHANGES IN AGRONOMIC TRAITS FROM S-1-LINE RECURRENT SELECTION
     FOR COLD TOLERANCE IN TWO MAIZE ZEA-MAYS POPULATIONS.

L23  ANSWER 3 OF 4  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   THE POSSIBILITIES OF USING LOCAL GERM-PLASM TO CONSTITUTE MEDIUM MATURITY
     CLASS MAIZE HYBRIDS.

L23  ANSWER 4 OF 4  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   INDEX SELECTION FOR SEVERAL AGRONOMIC TRAITS IN THE BSSS-2 MAIZE
     POPULATION.


=> d 1-4 ab

L23  ANSWER 1 OF 4  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB   A silage maize hybrid is now considered different from a grain
     maize hybrid. This paper gives data on relevant agronomic and
     feeding value traits suitable in a silage hybrid. It also gives data on
     breeding strategies and genetic variations available to maize
     breeders. A silage hybrid should have a good and stable biomass yield, and
     a grain content between 46 and 50% according to the quantity and the
     quality of starch in the diet. Earliness of the plant should be adapted to
     the cropping area,  and should be assessed from whole plant experiments.
     Cold tolerance should be improved to help cropping in northern
     areas, as well as resistance to soil fungi during the early growth of
     roots. A well-developed rooting system is necessary to either contribute
     to a good lodging resistance, or to contribute to a tolerance to water
     deficiency and nitrogen uptake. Protein content cannot be improved in the
     usual way, because of a lack of genetic variation, but improvement could
     be made through an  investigation into the genetic variation of the
     degradability of proteins in the rumen. Digestibility should be
     investigated through an enzymatic solubility predicted from a NIRS
     calibration, performed on whole plant samples, allowing also an estimate
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of the cell-wall digestibility if NDF, starch and soluble carbohydrates were simultaneously given by NIRS calibrations. When available, a criterion of ingestibility should be used. The criteria of feeding value must be relevant to animal performances. To avoid the risk of a genetic drift towards low feeding values during **stalk lodging** resistance breeding, both traits must be considered simultaneously. Improved feeding value of a silage **maize** hybrid would also emerge after further investigations into biochemical traits in cell walls, in lignins monomeric composition and linkages between lignin and structural carbohydrates. Silage **maize** breeders must also take into account the need for feeding cattle at low costs and in environmentally friendly ways.

L23 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AB **Cold** tolerance is an aggregate trait important to dependable stand establishment in many environments. Selection for improved **cold** tolerant **maize** (Zea mays L.) germplasm, however, must not deter improvement of traits that are important later in the growing season. Correlated changes in agronomic traits due to five cycles of S1-line recurrent selection for **cold** tolerance were evaluated in two **maize** populations. Correlated changes in means were expressed in terms of changes in allelic frequency due to pleiotropy or linkage and drift. Selection was associated with correlated genetic changes (2.DELTA.p.alpha.) in grain yield [0.22 Mg ha-1 cycle-1 when averaged over both BS13(SCT) and BSSS2(SCT)], grain moisture (-0.3% cycle-1), early stand count (0.7 plants plot-1 cycle-1), and final stand (387.4 plants ha-1 cycle-1). Root lodging resistance was increased 2.5% cycle-1 in BS13(SCT) and decreased 2.0% cycle-1 in BSSS2(SCT). **Stalk lodging** resistance decreased 0.40% cycle-1 in BS13(SCT). The increased frequencies of pleiotropic or linked genes controlling grain yield and grain moisture were expressed at both early and normal planting dates. The correlated genetic changes in early stand count, final stand, and root and **stalk lodging** resistance were influenced by date of planting. Genetic drift (2.DELTA.p2d) was significant for grain yield (-0.23 Mg ha-1 cycle-1). Genetic drift overwhelmed the increase in allelic frequency due to selection for grain yield; hence, the populations per se were unchanged. The data suggest that selection for **cold** tolerance with larger effective population sizes may result in correlated improvements in yield of the population per se.

L23 ANSWER 3 OF 4 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AB In 2 localities and for 2 yr, comparisons were made among 50 2-way hybrids obtained by crossing factorially 10 North American inbred lines (A) with 5 inbred lines extracted from Italian populations (I). In addition to these, 10 hybrids among American lines, 5 hybrids among Italian lines and a few commercial hybrids were compared for a total of 72 entries. The A .times. I crosses gave higher yields compared to the other combinations, in all environmental conditions, both as a general mean and with reference to the best cross from each group. The yield superiority shown by these hybrids, compared to the A .times. A crosses, can be partly attributed to greater **cold** resistance, and partly to better adaptation capacities to the pedoclimatic and cropping conditions. Also, considering the fairly high plant density used in this trial (7 pp/m2), the erectness of the leaves which characterized the Italian material and crosses derived from this, probably was an advantage. Within the lines from group A, H55, Oh 7N and B 37 were the best with regard to general combining ability; the first was best in the most difficult environmental conditions, the others were more suitable in better conditions. If **stalk lodging** resistance was also considered, the best lines for these conditions were B 14A, B37 and A 632.

L23 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

```
=> d 1-4 so

L23  ANSWER 1 OF 4  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
SO   Agronomie (Paris), (Oct., 1997) Vol. 17, No. 8, pp. 395-411.
     ISSN: 0249-5627.

L23  ANSWER 2 OF 4  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
SO   CROP SCI, (1986) 26 (3), 519-522.
     CODEN: CRPSAY. ISSN: 0011-183X.

L23  ANSWER 3 OF 4  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
SO   GENET AGRAR, (1977 (RECD 1978)) 31 (3-4), 281-294.
     CODEN: GEAGAC. ISSN: 0016-6685.

L23  ANSWER 4 OF 4  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
SO   CROP SCI, (1975 (RECD 1976)) 15 (6), 827-833.
     CODEN: CRPSAY. ISSN: 0011-183X.


=> s norhtern leaf blight and (corn or maize)
L24          0 NORHTERN LEAF BLIGHT AND (CORN OR MAIZE)

=> s northern leaf blight and (corn or maize)
L25        138 NORTHERN LEAF BLIGHT AND (CORN OR MAIZE)

=> s l25 and high grain yield
L26          0 L25 AND HIGH GRAIN YIELD

=> s l25 and pollen shed
L27          0 L25 AND POLLEN SHED

=> s l25 and stalk lodging
L28          0 L25 AND STALK LODGING
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